

### REMARKS

Reconsideration and re-examination are respectfully requested.

The specification has been amended to include reference to the sequence identifier for the amino acid sequence Gly-Ser-His-Met at page 26, line 36.

Claims 1, 11, and 13 remain in this application. Claim 1, as amended, is directed to a crystal of an AR-LBD consisting of amino acids 13 through 258 of SEQ ID NO:1 complexed with AR-LBD ligand, said crystal belonging to the space group P212121 and having the unit cell dimensions  $a = 56.03$  angstrom,  $b = 66.27$  angstrom, and  $c = 70.38$  angstrom. This amendment to claim 1 is supported by Table A (which provides the feature of an AR-LBD consisting of amino acids 13 through 258 of SEQ ID NO:1) and original claim 10 (which provides the feature of said crystal belonging to the space group P212121 and having the unit cell dimensions  $a = 56.03$  angstrom,  $b = 66.27$  angstrom, and  $c = 70.38$  angstrom). Claims 11 and 13 have been amended to track the amendment to claim 1.

No new matter is believed to be added.

### Supplemental Information Disclosure Statement

A Supplemental Information Disclosure Statement was filed February 4, 2003. Applicants request a copy of the initialed PTO 1449 form as evidence that the Examiner has considered the information contained therein.

### Sequence Compliance

The application was objected to as failing to comply with the requirements of 37 CFR §§ 1.821 through 1.825.

The Office Action indicates that the sequence listing does not contain the four amino acid sequence contained in the specification at page 26, line 36. Applicants submit with this Amendment and Response an Amendment to Sequence Listing under 37 C.F.R. § 1.825 that includes SEQ ID NO:5 containing the four amino acid sequence contained in the specification at page 26, line 36. The specification has also been amended herein to include reference to the sequence identifier (i.e., SEQ ID NO:5) for this sequence.

The Office Action also alleges that there are two nucleotide sequences set forth in the specification on page 27, lines 11-15 and that these sequences are not present in the sequence listing. Applicants note that there are two *amino acid* sequences recited on page 27, *lines 11-35*. These two amino acid sequences are identical to the 260 amino acid sequence (androgen receptor ligand-binding domain, positions 660-919 on page 27) of SEQ ID NO:1 and the 255 amino acid sequence (progesterone ligand-binding domain, positions 678-932 on page 27) of SEQ ID NO:2.

Thus, it is believed that the sequences contained in the specification on page 27, lines 11-35, which are provided as SEQ ID NOS:1 and 2 in the sequence listing, comply with the requirements of 37 CFR §§ 1.821 through 1.825.

Furthermore, the Office Action alleges that the specification refers to nucleic acid SEQ ID NOS:1 and 2 at page 9, line 27. Applicants have reviewed the specification at page 9, line 27 (as well as other portions of the specification), and have not found any reference to SEQ ID NOS:1 and 2 as being nucleic acid sequences rather than amino acid sequences. It is submitted that the specification refers to SEQ ID NOS:1 and 2 correctly as amino acid sequences of the androgen receptor ligand-binding domain and progesterone receptor ligand-binding domain.

The application, as amended, is believed to comply with the requirements of 37 CFR §§ 1.821 through 1.825. Withdrawal of the objections is requested.

### **35 U.S.C. 112, first paragraph**

Claims 1-10, 11, 13, 18, and 33 stand rejected as purportedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. This rejection is traversed to the extent the rejection applies to the claims as amended.

Claim 1, as amended, is directed to a crystal of an AR-LBD consisting of amino acids 13 through 258 of SEQ ID NO:1 complexed with AR-LBD ligand, said crystal belonging to the space group P2<sub>1</sub>2<sub>1</sub>2<sub>1</sub> and having the unit cell dimensions  $a = 56.03$  angstrom,  $b = 66.27$  angstrom, and  $c = 70.38$  angstrom. Claims 11 and 13, as amended, are directed to the crystals of claim 1 that have an AR-LBD ligand binding site defined by certain structure coordinates.

Applicants submit that the specification describes the subject matter of the claims, as amended herein, in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claims 1-11, 13, 18, and 33 also stand rejected as purportedly not being fully enabled by the specification. This rejection is traversed to the extent the rejection applies to the claims as amended.

The specification enables one of skill in the art to make and use the subject matter of amended claim 1, particularly the teachings of the examples (pages 26-37 and Table A on pages 38-72) providing a crystal of an AR-LBD consisting of amino acids 13 through 258 of SEQ ID NO:1 complexed with AR-LBD ligand. It is further submitted that claims 11 and 13, which depend from claim 1, are also enabled.

Withdrawal of these rejections is requested.

**35 U.S.C. 112, second paragraph**

Claims 1-11, 13, 18, and 33 stand rejected as purportedly being indefinite. This rejection is traversed to the extent the rejection applies to the claims as amended.

The Office Action alleges that it is unclear as to what the metes and bounds of the AR-LBD are. Claim 1, as amended, recites a crystal of an AR-LBD consisting of amino acids 13 through 258 of SEQ ID NO:1 complexed with AR-LBD ligand. It is submitted that the metes and bounds of this crystal are clear and definite. It is also submitted that the claims 11 and 13, as amended, are also definite.

The Office Action also states at page 6, first complete paragraph, that the numbering of the amino acid residues defining the AR-LBD is confusing. As noted in the Office Action, the amino acid Ile is located at residue 672 and the residue His is located at residue 917, which differs from the particular amino acid residues found at these positions in Figure 2 of Chang et al., PNAS (1988) Vol. 85, page 7211. Applicants note, however, that the sequence of Chang et al. is provided, not only in the PNAS article cited above, but also in GenBank Accession No. P10275 (copy enclosed). This GenBank sequence provides the numbering system of the human amino acid sequence that is known in the art. This numbering system is also provided in the specification at page 27, lines 11-35 wherein position 672 of the rat androgen receptor ligand-binding domain is I (Ile). Thus, the numbering system referred to in the specification is with regard to the numbering system recognized in the art.

The Office Action at page 6, second complete paragraph, also rejects claims 1-11, 13, 18, and 33 under 35 U.S.C. § 112, first paragraph, as purportedly not being fully enabled by the specification. It is believed that this rejection, in view of the remarks above, has been overcome.

Withdrawal of these rejections is requested.

**CONCLUSION**

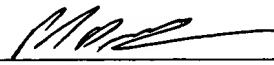
In view of the foregoing amendments and remarks, allowance of the application is respectfully requested. The Examiner is invited to contact the undersigned if there are any questions concerning the prosecution of this application.

The Commissioner is authorized to charge Deposit Account 19-3880 (Bristol-Myers Squibb Company) for any requisite fees due or to credit any overpayment.

Appl. No. 09/687,609  
Docket No. BMS-0010 (D0006)

Respectfully submitted, .

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Date: 7/21/03

Enclosure: GenBank Accession No. P10275